TEST REPORT

Applicant:	TFIVE PTY LTD
Address:	10/29 Lorne Ave Killara NSW 2071 Australia
Equipment Type:	Smart Lock U100
Model Name:	SDL-D01 (refer section 2.4)
Brand Name:	Aqara
Test Standard:	AS/NZS 4268:2017
Sample Arrival Date:	Apr. 19, 2023
Test Date:	Apr. 21, 2023 - Apr. 26, 2023
Date of Issue:	Apr. 28, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Chong **Checked by:** Xia Long **Approved by:** Liao Jianming (Technical Director)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Apr. 28, 2023	Initial Issue

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	TFIVE PTY LTD
Address	10/29 Lorne Ave Killara NSW 2071 Australia

2.2 Manufacturer Information

Manufacturer	Lumi United Technology Co., Ltd.
Address	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Smart Lock U100
Model Name Under Test	SDL-D01
Series Model Name	DL-D01D
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name and color. (this information provided by the customer)
Hardware Version	V2.1
Software Version	1.0.4_0007
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	Bluetooth, Zigbee, NFC

The requirement for the following technical information of the EUT was tested in this report:

Modulation Type	ASK
Frequency Range	13.56 MHz
Product Class	1
Receiver Categorization	3
Number of channel	1
Tested Channel	1
Antenna Type	Coil Antenna
About the Product	The equipment is Smart Lock U100, intended for used with information technology equipment. Only NFC was tested in this report.

Note 1: The above EUT information in section 2.4 and 2.5 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

Note 2: According to client's declare, the EUT only supports NFC Tx and Rx, not NFC Standby.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

The EUT has been tested according to ETSI EN 300 330 V2.1.1 (2017-02).

No.	Identity	Document Title
1	AS/NZS 4268:2017	Radio equipment and systems - Short range devices - Limits and methods of measurement

3.2 Verdict

Report Section	Standard Rule	Description	Result
Transmitter requirements			
5.1.1	4.3.1	Permitted range of operating frequencies	Pass
5.1.2	4.3.2	Operating frequency ranges	Pass
5.1.3	4.3.3	Modulation bandwidth	Pass
5.1.4	4.3.4	Transmitter H-field requirements (only applies to product class 1 and class 2)	Pass
--	4.3.5	Transmitter RF carrier current (only applies to product class 3)	N/A
--	4.3.6	Transmitter radiated E-field (only applies to product class 4)	N/A
--	4.3.7	Transmitter conducted spurious emissions (only applies to product class 3 and their power or current level in an artificial antenna (conducted spurious emission)	N/A
5.1.5	4.3.8	Transmitter radiated spurious domain emission limits < 30 MHz	Pass
5.1.6	4.3.9	Transmitter radiated spurious domain emission limits > 30 MHz	Pass
--	4.3.10	Transmitter Frequency stability (only applies to channelized systems where channel limits are defined	N/A
Receiver requirements			
5.2.1	4.4.2	Receiver spurious emissions	Pass
--	4.4.3	Adjacent channel selectivity (only for channelized systems in the 27 MHz range)	N/A
--	4.4.4	Receiver blocking or desensitization (only applicable for channelized systems where channel definitions are used.)	N/A

3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Radiated emissions (9 kHz–30 MHz)	4.28 dB
Radiated emissions (30 MHz-1 GHz)	4.80 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

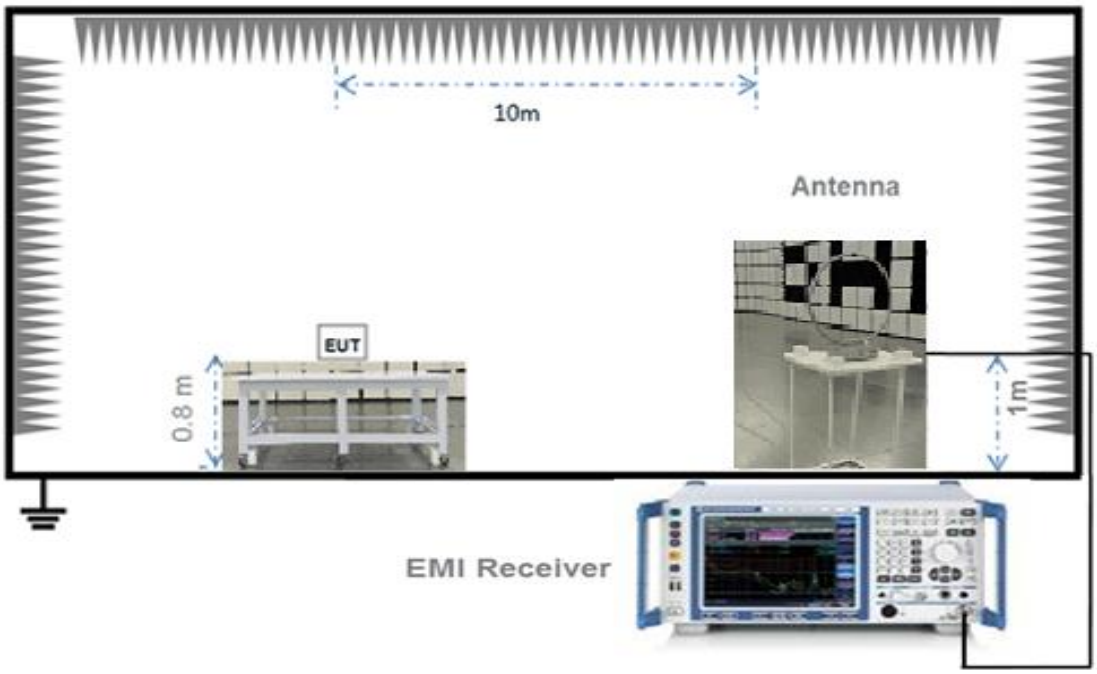
Relative Humidity	30% to 60%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22℃ to +25℃
	LT (Low Temperature)	-20℃
	HT (High Temperature)	+55℃
Working Voltage of the EUT	NV (Normal Voltage)	5.0 V
	LV (Low Voltage)	4.8 V
	HV (High Voltage)	5.5 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2022.12.07	2023.12.06
Anechoic Chamber	EMC TECHNOLOGY LTD	20.1m*11.6m*7.35m	130	2021.08.15	2024.08.14
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18

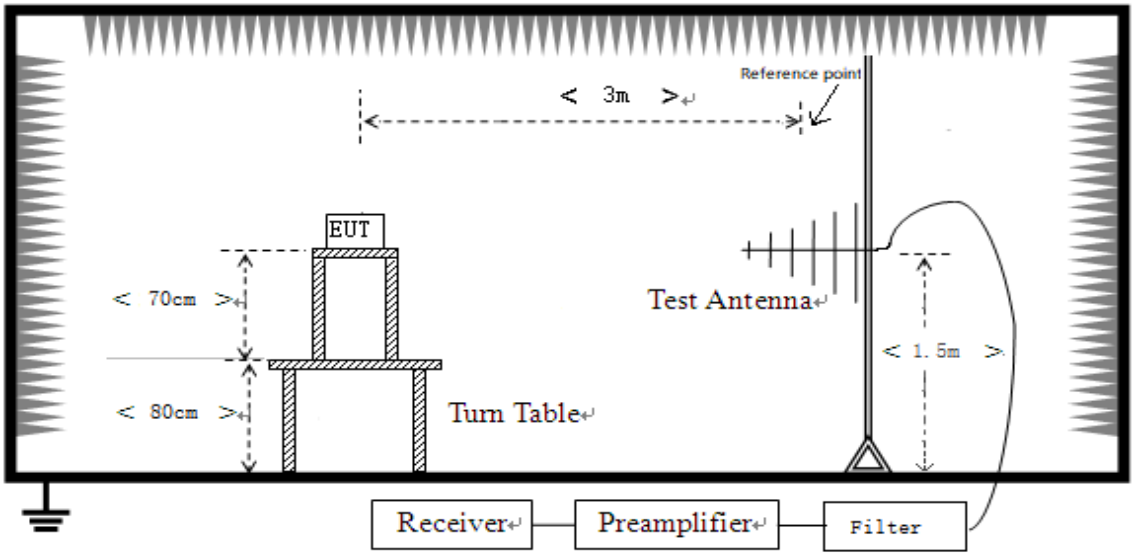
4.3 Description of Test Setup

4.3.2 For Radiated Test (Below 30 MHz)



(Diagram 1)

4.3.3 For Radiated Test (30 MHz-1 GHz)



(Diagram 2)

4.4 Receiver categorization

Technologies	Receiver spurious emission	Adjacent channel selectivity	Blocking or desensitization
tagging systems	yes	no (note 2)	no (note 1)
systems in the 27 MHz range	yes	yes	yes
all others	yes	no (note 2)	yes

NOTE 1: Blocking or desensitization not needed because of the physical co-location of RX to TX in tagging systems where the RX and TX operate simultaneously. The TX signal is used for the RX baseband mixing. The TX signal at the RX input is about 90 dB above the receiver sensitivity or tagging signal level the receiver (see ETSI TR 103 059 [i.9], figure 8). Furthermore given the very short communication ranges for most applications (e.g. NFC, RFID), a given interference blocking signal will have to be about 90 dB higher as the transmitter signal at the transceiver antenna, which is unlikely to happen.
NOTE 2: This requirement can only be required where a frequency plan with standard channel spacing is consistently used, for example in the 27 MHz band.

4.5 Product classes

Product Class	Description of transmitter	Antenna to be tested	Frequency range	Loop antenna area	Length of antenna (= maximum dimension of the antenna)	Customization of antenna design allowed	Transmitter carrier output limits	Spurious emissions limits
1	Inductive loop coil transmitter	Integral antenna (antenna type 1) or dedicated antenna supplied with the equipment (antenna type 2); (see note 1)	9 kHz to 30 MHz	< 30 m^2	< λ/4 (75 metres/f where f is in MHz) or < 30 m, whichever is shorter	No	H-field at 10 m (see clause 4.3.4.3)	H-field at 10 m (see clauses 4.3.8.3 and 4.3.9.3)
2	Inductive loop coil transmitter	Two representative antennas supplied with the equipment (see note 2)	9 kHz to 30 MHz	< 30 m^2 (see note 3)	< λ/4 (75 metres/f where f is in MHz) or < 30 m, whichever is shorter	Yes (see note 3)	H-field at 10 m (see clause 4.3.4.3)	H-field at 10 m (see clauses 4.3.8.3 and 4.3.9.3)
3	Customized, large size loop antennas only	Test without an antenna by using an artificial antenna	9 kHz to 135 kHz	> 30 m^2	n.a.	Yes	Current in artificial antenna (see note 4 and clauses 4.3.4.3 and 4.3.6.3)	Current in artificial antenna (see note 4 and clauses 4.3.7.3 and 4.3.19.3)
4	E-field transmitter	Each type of antenna to be used	9 kHz to 30 MHz	n.a.	n.a.	n.a.	H-field at 10 m (see clause 4.3.6.3)	H-field at 10 m (see clauses 4.3.8.3 and 4.3.9.3)

NOTE 1: Where a manufacturer provides a range of standard antennas, the equipment will be tested as Product Class 1 equipment, with the antenna(s) attached. The measurements shall be repeated for each antenna.
NOTE 2: The two antennas shall meet the manufacturer's design rules published in the equipment manual and shall have maximum and minimum loop areas respectively. Both antennas shall have the maximum magnetic dipole moment as declared by the manufacturer.
NOTE 3: Customization is only allowed according to the manufacturer's antenna design rules published in the equipment manual.
NOTE 4: ON-site measurements may be required.

4.6 Measuring receiver

Frequency	Detector type	Measurement receiver bandwidth	Spectrum analyzer bandwidth
9 kHz≤f<150 kHz	Quasi Peak	200 Hz	300 Hz
150 kHz≤f<30 MHz	Quasi Peak	9 kHz	10 kHz
30 MHz≤f<1 GHz	Quasi Peak	120 kHz	100 kHz
NOTE: For the measurement of the ranges 6,765 MHz ≤ f ≤ 6,795 MHz and 11,810 MHz ≤ f ≤ 15,310 MHz, the measurement bandwidth has to be 200 Hz respectively 300 Hz.			

4.7 Short Range Devices within the 9 kHz to 30 MHz permitted frequency bands

	Frequency Bands/frequencies	Applications
Transmit and Receive	9 kHz to 90 kHz	Inductive devices, Generic use
Transmit and Receive	90 kHz to 119 kHz	Inductive devices, Generic use
Transmit and Receive	119 kHz to 140 kHz	Inductive devices, Generic use
Transmit and Receive	140 kHz to 148,5 kHz	Inductive devices, Generic use
Transmit and Receive	148,5 kHz to 5 MHz	Inductive devices, Generic use
Transmit and Receive	400 kHz to 600 kHz	RFID only
Transmit and Receive	5 MHz to 30 MHz	Inductive devices, Generic use
Transmit and Receive	3 155 kHz to 3 400 kHz	Inductive devices, Generic use
Transmit and Receive	984 kHz to 7 484 kHz (Note 3, Centre frequency is 4 234 kHz)	Inductive devices, Railway applications
Transmit and Receive	4 516 kHz	Inductive devices, Railway applications
Transmit and Receive	6 765 kHz to 6 795 kHz	Inductive devices, Generic use
Transmit and Receive	7 400 kHz to 8 800 kHz	Inductive devices, Generic use
Transmit and Receive	10 200 kHz to 11,000 MHz	Inductive devices, Generic use
Transmit and Receive	11,810 MHz to 15,310 MHz (Centre frequency is 13,56 MHz)	RFID only
Transmit and Receive	12,5 MHz to 20 MHz	Inductive devices, Wireless healthcare
Transmit and Receive	13,553 MHz to 13,567 MHz	Inductive devices, Generic use
Transmit and Receive	26,957 MHz to 27,283 MHz	Inductive devices, Generic use
Transmit and Receive	27,090 MHz to 27,100 MHz	Inductive devices, Railway applications

NOTE 1: In addition, it should be noted that other frequency bands may be available in a country within the frequency range 9 kHz to 30 MHz.

NOTE 2: On non-harmonised parameters, national administrations may impose certain conditions such as the type of modulation, frequency, channel/frequency separations, maximum transmitter radiated power, duty cycle, and the inclusion of an automatic transmitter shut-off facility, as a condition for the issue of an Individual Rights for use of spectrum or General Authorization, or as a condition for use under "licence exemption" as it is in most cases for Short Range Devices.

NOTE 3: Transmitting only on receipt of a Balise/Eurobalise tele-powering signal from a train.

5. Test Type and Test Results

5.1. Transmitter Parameters

5.1.1. Permitted range of operating frequencies

5.1.1.1. Limit

The permitted range of operating frequency for intentional emissions shall be from 9 kHz to 30 MHz.

5.1.1.2. Test Setup

The section 4.3.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.1.3. Test Procedure

The permitted range of operating frequencies is the frequency range over which the equipment is authorized to operate.

If more than one modulation scheme can be generated by the EUT, then for each modulation scheme and one typical set of modulation parameters the maximum and minimum frequencies shall be measured and recorded separately.

5.1.1.4. Test Result

Please refer to ANNEX A.1.

5.1.2. Operating frequency ranges

5.1.2.1. Limit

The operating frequency ranges for intentional emissions shall be entirely within the frequency bands in table in section 4.7.

5.1.2.2. Test Setup

The section 4.3.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.2.3. Test Procedure

The operating frequency range (OFR) is the frequency range over which the EUT is transmitting. The operating frequency range of the EUT is determined by the lowest (fL) and highest frequency (fH) as occupied by the power envelope. With the centre frequency of the OFR as: fC = (fH+fL)/2. An EUT could have more than one operating frequency range.

5.1.2.4. Test Result

Please refer to ANNEX A.2.

5.1.3. Modulation bandwidth

5.1.3.1. Limit

The modulation bandwidth shall be within the assigned frequency band or ±7,5 % of the carrier frequency whichever is the smallest. For RFID and EAS Systems, the modulation bandwidth shall be within the transmitter emission boundary of figures I.1, I.2, I.3 and I.4. For further information, see CEPT/ERC/REC 70-03 [i.1] or ERC/ECC/CEPT Decisions as implemented through National Radio Interfaces (NRI) and additional NRI as relevant.

5.1.3.2. Test Setup

The section 4.3.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3.3. Test Procedure

The transmitter shall be connected to an artificial antenna or if the transmitter has an integral antenna a test fixture shall be used. The RF output of the equipment shall be connected to a spectrum analyser via a 50 Ω variable attenuator.
The transmitter shall be operated at the nominal carrier power or field strength measured under normal test conditions.
The measurements shall be made during normal and extreme test conditions. During extreme test conditions, both extreme temperature and voltage apply simultaneously

5.1.3.4. Test Result

Please refer to ANNEX A.3.

5.1.4. Transmitter radiated H-field

5.1.4.1. Limit

The frequency ranges and limits shown in flow table.

H-field limits at 10 m

Frequency range (MHz)	H-field strength limit (H_f) dBµA/m at 10 m or specified in mW e.r.p.
0,009 ≤ f < 0,090	72 descending 3 dB/oct above 0,03 MHz or according to note 1 (see note 5)
0,09 ≤ f < 0,119	42
0,119 ≤ f < 0,135	66 descending 3 dB/oct above 0,119 MHz or according to note 1 (see notes 3 and 5)
0,135 ≤ f < 0,140	42
0,140 ≤ f < 0,1485	37,7
0,1485 ≤ f < 30	-5 (see note 4)
0,315 ≤ f < 0,600	-5
3,155≤ f < 3,400	13,5
4,234	9 (see note 9)
4,516	7
7,400 ≤ f < 8,800	9
10,2 ≤ f < 11,00	9
12,5 ≤ f ≤ 20	-7
6,765 ≤ f ≤ 6,795	42 (see notes 3 and 7)
26,957 ≤ f ≤ 27,283	42 (see note 3)
13,410 ≤ f ≤13,553, 13,567 ≤ f ≤ 13,710	9 (see note 6)
13,110 ≤ f ≤ 13,410, 13,710 ≤ f ≤ 14,010	-3,5 (see note 6)
12,660 ≤ f ≤ 13,110, 14,010 ≤ f ≤ 14,460	-10 (see note 6)
11,810 ≤ f ≤ 12,660, 14,460 ≤ f ≤ 15,310	-16 (see note 6)
13,460 ≤ f ≤ 13,553, 13,567 ≤ f ≤ 13,660	27 (see note 6)
13,360 ≤ f ≤ 13,460, 13,660 ≤ f ≤ 13,760	Linear transition from 27 to -3,5 (see note 6)
13,110 ≤ f ≤ 13,360, 13,760 ≤ f ≤ 14,010	-3,5 (see note 6)
12,660 ≤ f ≤ 13,110, 14,010 ≤ f ≤ 14,460	-5 (see note 6)
13,553 ≤ f ≤ 13,567	42 (see note 3) or 60 (see notes 2 and 3)
27,095	42
26,995, 27,045, 27,095, 27,145, 27,195 (see note 8)	100 mW

NOTE 1: For the frequency ranges 9 kHz to 135 kHz, the following additional restrictions apply to limits above 42 dBµA/m:
- for loop coil antennas with an area ≥ 0,16 m^2 this table and table B.1 with the antenna limitations apply;
- for loop coil antennas with an area between 0,05 m^2 and 0,16 m^2 table B.1 applies with a correction factor. The limit is: table value + 10 × log (area/0,16 m^2);
- for loop coil antennas with an area < 0,05 m^2 the limit is 10 dB below table B.1.

NOTE 2: For RFID (incl. NFC) and EAS applications only.
NOTE 3: Spectrum mask limit, see annex I.
NOTE 4: For further information see annex G.
NOTE 5: Limit is 42 dBµA/m for the following spot frequencies:
60 kHz ± 250 Hz, 66,6 kHz ± 750 Hz, 75 kHz ± 250 Hz, 77,5 kHz ± 250 Hz,
and 129,1 kHz ± 500 Hz.
NOTE 6: Only in conjunction with spectrum mask, see annex I.
NOTE 7: The frequency range 6,765 MHz - 6,795 MHz is not a harmonised ISM frequency band according article 5.138 of the ITU Radio Regulations [i.13].
NOTE 8: Center frequencies for channelized systems by using ≤ 10 kHz bandwidth.
NOTE 9: The limit is valid in the range 984 kHz - 7 484 kHz for Transmitting only on receipt of a Balise/Eurobalise tele-powering signal from a train.

5.1.4.2. Test Setup

The section 4.3.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.4.3. Test Procedure

The conformance tests for Transmitter radiated H-field shall be as defined in clause 6.2.4 of the present document. Conformance shall be established under test conditions to be declared by the manufacturer according to clause 4.1. The interpretation of the results for the measurements uncertainty shall be as given in clause 5.13.

5.1.4.4. Test Result

Please refer to ANNEX A.4.

5.1.5. Transmitter radiated spurious domain emission limits < 30 MHz

5.1.5.1. Limit

Limits for transmitters spurious emissions in the range from 9 kHz to 30 MHz

Limits for measurements at 10 m distance:

State	Frequency 9 kHz≤ f <10MHz	Frequency 10 MHz≤ f <30MHz
Transmit	27 dBμA/m at 9 kHz descending 3 dB/oct	-3.5 dBμA/m
Standby	5.5 dBμA/m at 9 kHz descending 3 dB/oct	-25 dBμA/m

5.1.5.2. Test Setup

The section 4.3.2 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.5.3. Test Procedure

The conformance tests for transmitter radiated spurious domain emission limits < 30 MHz shall be as defined in clause 6.2.8 of the present document. Conformance shall be established under test conditions to be declared by the manufacturer according to clause 4.1. The interpretation of the results for the measurements uncertainty shall be as given in clause 5.13.

5.1.5.4. Test Result

Please refer to ANNEX A.5.

5.1.6. Transmitter radiated spurious domain emission limits > 30 MHz

5.1.6.1. Limit

Limits for transmitters spurious emissions in the range from 30 MHz to 1000 MHz

The power of any radiated emission shall not exceed the values as below.

State	47 MHz to 74 MHz 87.5 MHz to 118 MHz 174 MHz to 230 MHz 470 MHz to 790 MHz	Other frequency between 30 MHz to 1000 MHz
Operating	4 nW e.r.p	250 nW e.r.p
Standby	2 nW e.r.p	2 nW e.r.p

Note 1: The test limit has been transformed to the limit at 3m.

5.1.6.2. Test Setup

The section 4.3.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.6.3. Test Procedure

The conformance tests for transmitter radiated spurious domain emission limits > 30 MHz shall be as defined in clause 6.2.9 of the present document. Conformance shall be established under test conditions to be declared by the manufacturer according to clause 4.1. The interpretation of the results for the measurements uncertainty shall be as given in clause 5.13.

5.1.6.4. Test Result

Please refer to ANNEX A.6.

5.2. Receiver Parameters

5.2.1. Receiver Spurious Emissions

5.2.1.1. Limit

5.2.1.2. Limits for transmitters spurious emissions in the range from 9 kHz to 30 MHz

Limits for measurements at 10 m distance:

Frequency 9 kHz≤ f <10MHz	Frequency 10 MHz≤ f <30MHz
5.5dBμA/m at 9kHz descending 3 dB/oct	-25 dBμA/m

5.2.1.3. Limits for transmitters spurious emissions in the range from 30 MHz to 1000 MHz

The measured values shall not exceed 2 nW e.r.p.

5.2.1.4. Test Setup

See 4.3.1 and 4.3.2 (Diagram 1 and 2) for test setup description for the radiated test. The photo of test setup please refer to ANNEX B.

5.2.1.5. Test Procedure

The measurements of the radiated spurious emissions were made on an anechoic chamber. The spurious emissions produced by the equipment were measured at the distance of 3m. The spurious emissions are measured with a shielded loop antenna connected to a measurement receiver.

5.2.1.6. Test Result

Please refer to ANNEX A.7.

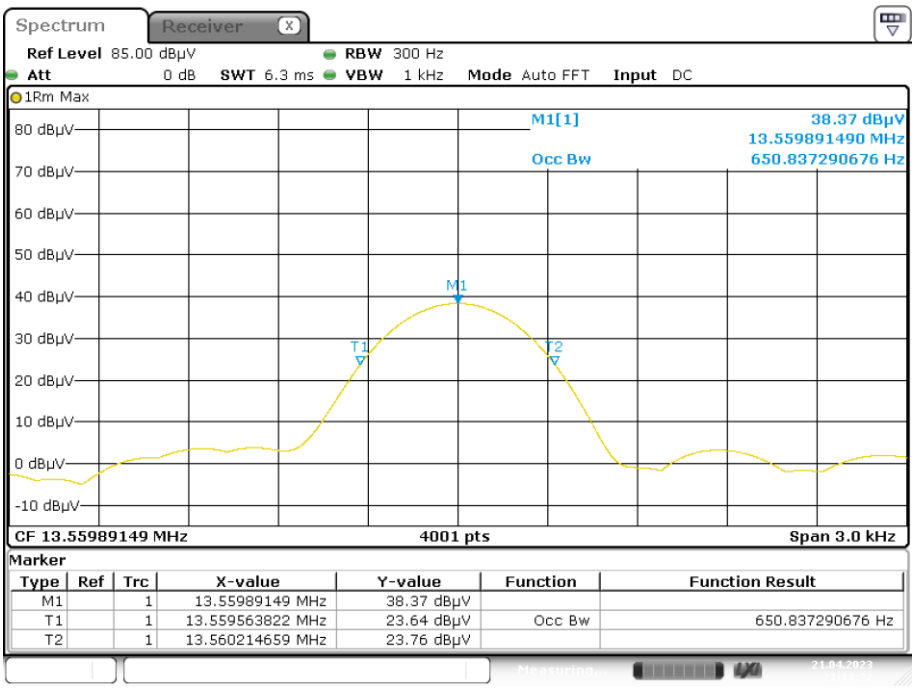
ANNEX A TEST RESULT

A.1 Permitted range of operating frequencies

Test Data

Test Method	Modulation	Test Conditions		operating frequencies (kHz)	limit
☒ Radiated ☐ Conducted	☒ ON ☐ OFF	NT	NV	13559.8915	13553 kHz to 13567 kHz
Test Result				Pass	

Test Plot



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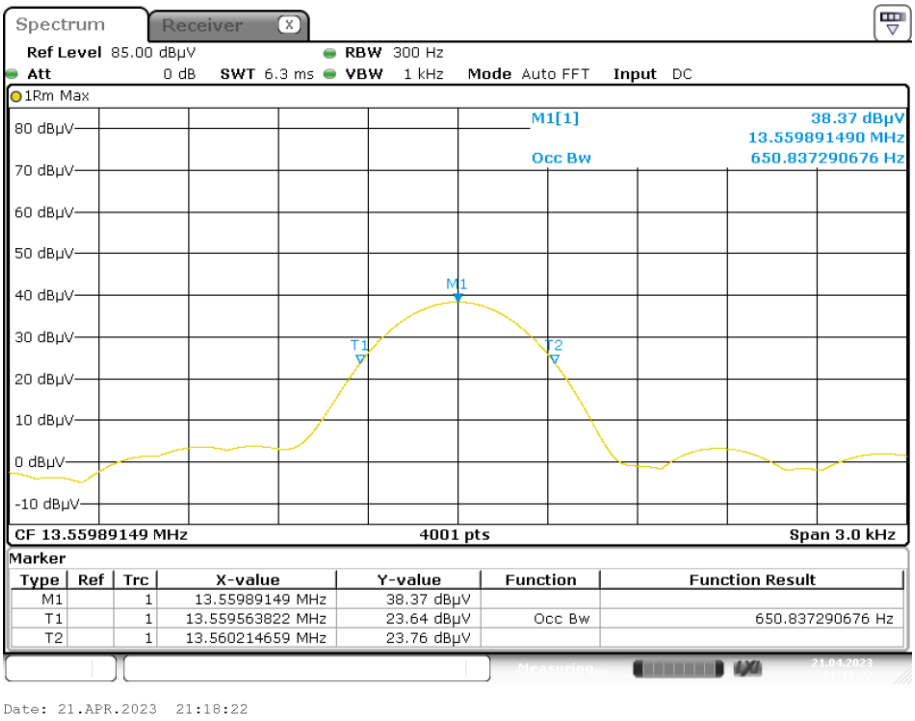
A.2 Operating frequency ranges

Test Data and Plot

Test Conditions		Frequency band			
		Measured (kHz)			Limit
		Low frequency	High frequency	F_c	
NT	NV	13559.56382	13560.21466	13559.88924	13553 kHz to 13567 kHz
Test Result		Pass			

Test Plot



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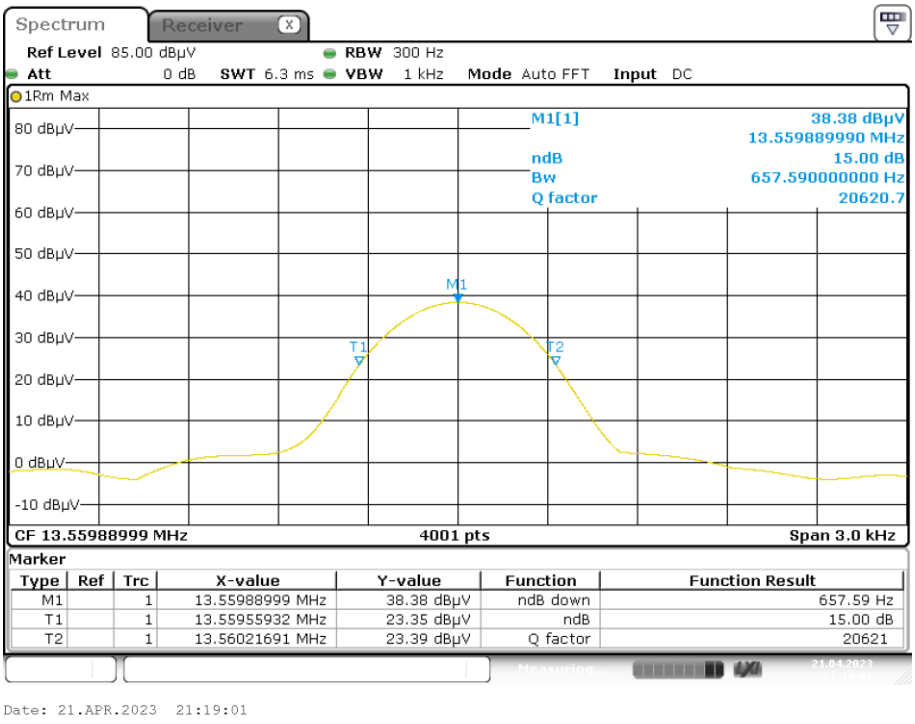
A.3 Modulation bandwidth

Test Data

Test Conditions		Frequency band		
		Measured (kHz)		limit
		Low frequency	High frequency	
NT	NV	13559.55932	13560.21691	Smallest(assigned frequency band, ±7,5 % of the carrier frequency)
Test Result		Pass		

Test Plot



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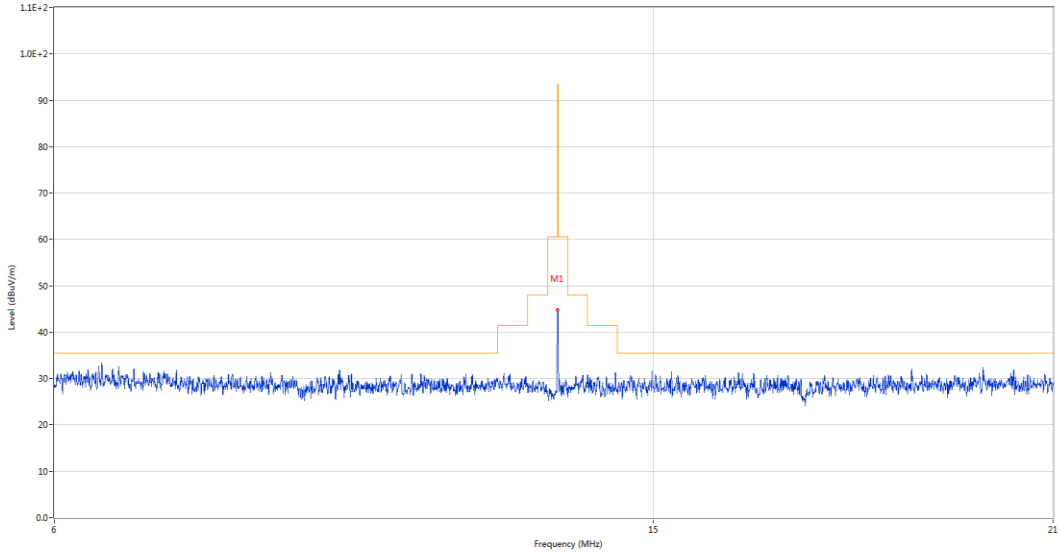
A.4 Transmitter radiated H-field

Test Data and Plot

Field Strength of Fundamental Emissions Value						
Frequency (MHz)	Field Strength @10m (dBμV/m)	Field Strength @10m (dBμA/m)	Limit @10m (dBμA/m)	Margin @10m (dB)	Antenna	Verdict
13.560	44.74	-6.76	42	48.76	Vertical	Pass

OPERATING



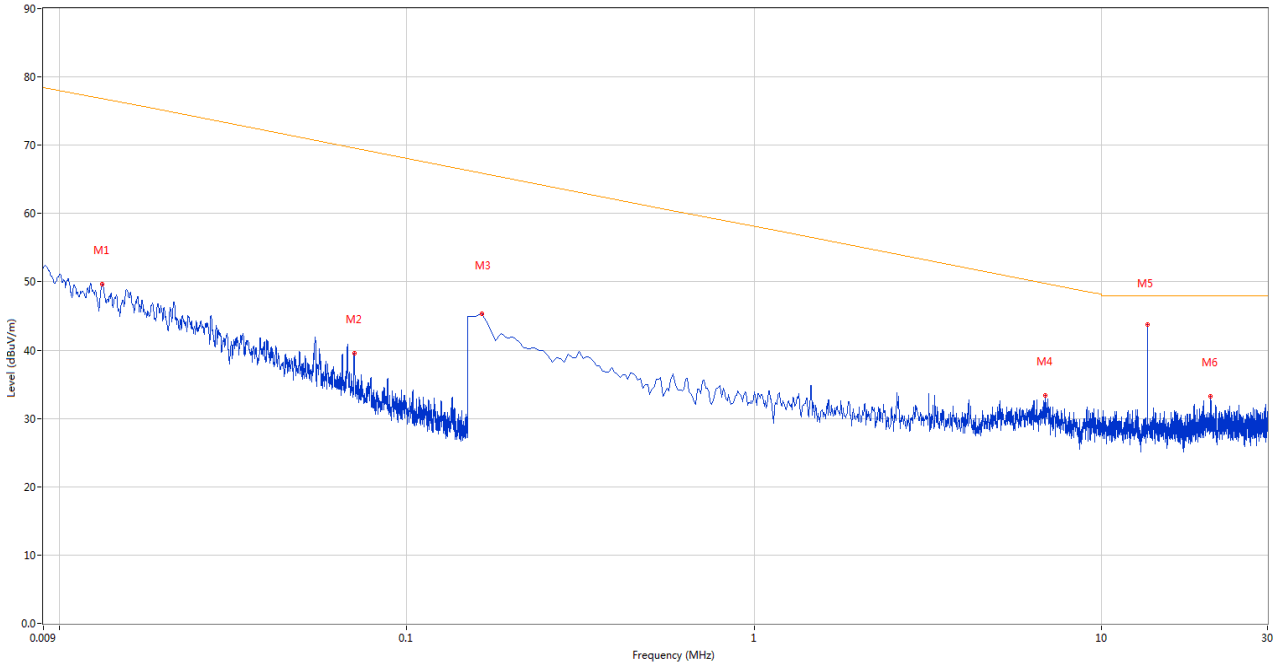
Note: For measuring equipment calibrated in dBμV, the reading should be reduced by 51.5 dB to be converted to dBμA/m.

A.5 Transmitter radiated spurious domain emission limits < 30 MHz

Note: This frequency which near 13.56 MHz with circle should be ignored because they are NFC carrier frequencies.

Transmitters spurious emissions in the range from 9 kHz to 30 MHz

OPERATING ANT-V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.013	49.67	20.11	76.8	27.13	Peak	26.00	100	Vertical	Pass
2	0.071	39.51	20.17	69.6	30.09	Peak	264.00	100	Vertical	Pass
3	0.165	45.35	20.10	65.9	20.55	Peak	75.00	100	Vertical	Pass
4	6.896	33.36	20.81	49.8	16.44	Peak	102.00	100	Vertical	Pass
5	13.560	43.78	20.86	48.0	4.22	Peak	1.00	100	Vertical	N/A
6	20.612	33.30	21.17	48.0	14.70	Peak	145.00	100	Vertical	Pass

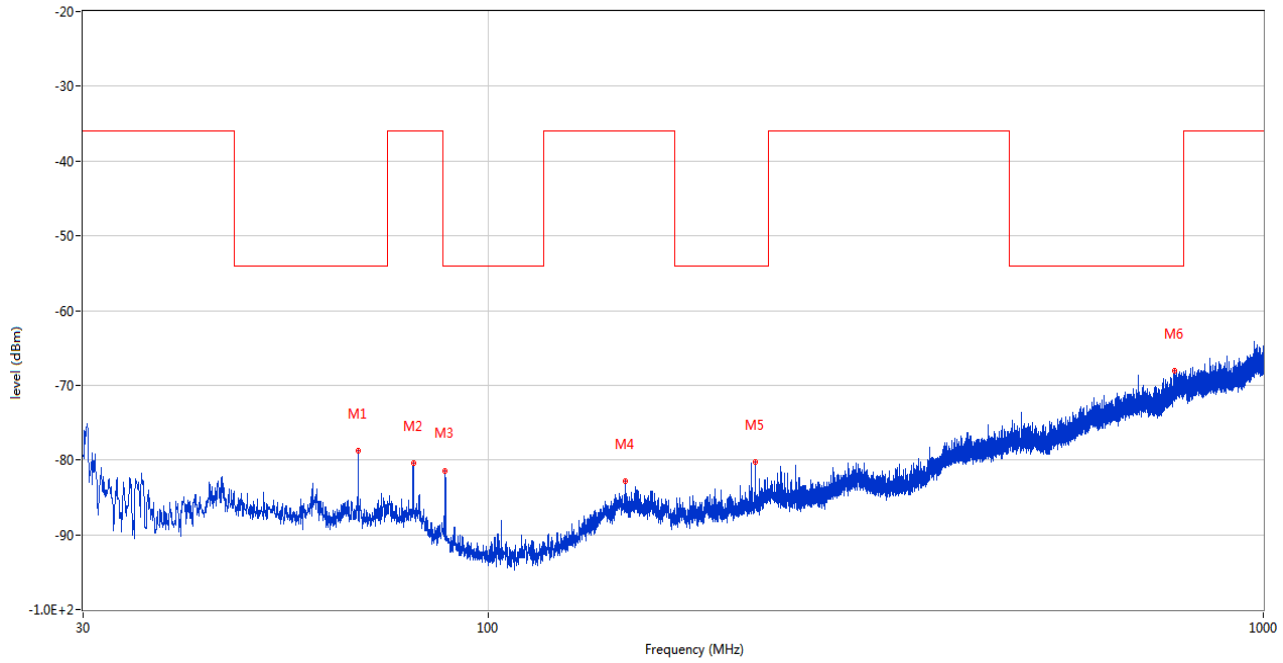
Note: For measuring equipment calibrated in dBμV, the reading should be reduced by 51.5 dB to be converted to dBμA/m.

A.6 Transmitter radiated spurious domain emission limits > 30 MHz

Transmitter spurious emissions in the range from 30 MHz to 1 GHz

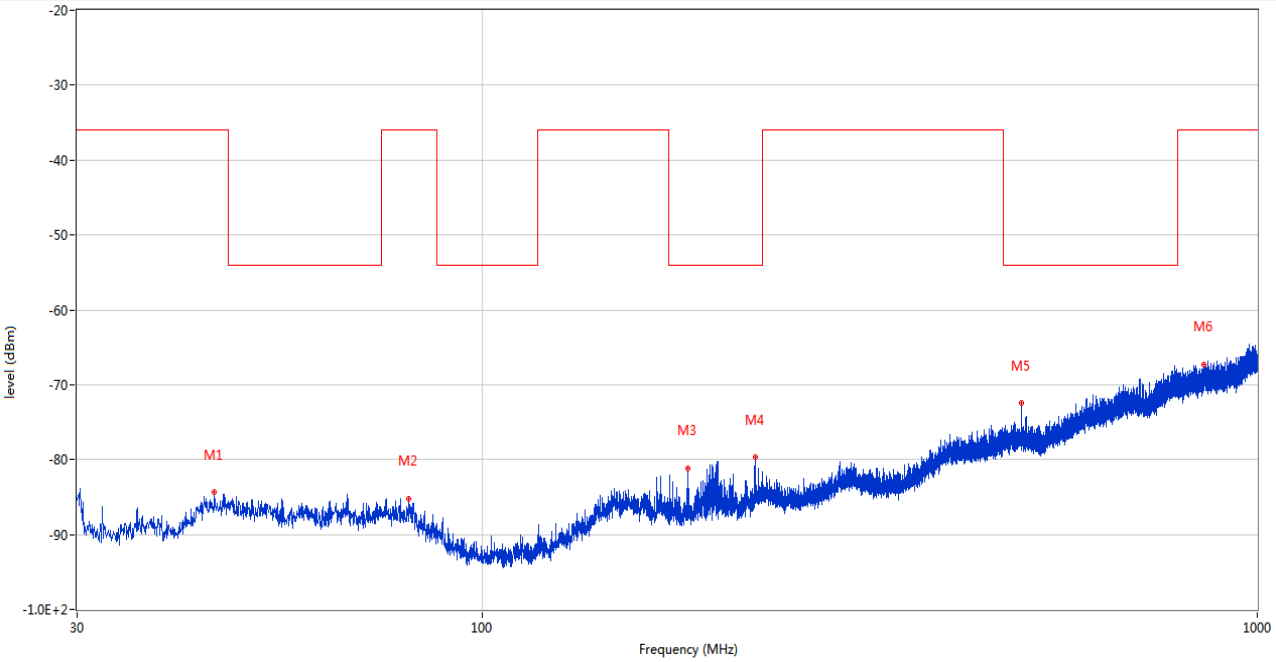
Test Data and Plot

OPERATING ANT-V



Frequency (MHz)	Result (dBm)	Factor (dB)	Limit (dBm)	Margin (dB)	Table (o)	ANT	EUT	Verdict
67.927	-78.77	-16.23	-54.0	24.77	306.00	Vertical	Horizontal	Pass
80.004	-80.40	-16.04	-36.0	44.40	221.00	Vertical	Horizontal	Pass
88.006	-81.41	-19.63	-54.0	27.41	249.00	Vertical	Horizontal	Pass
150.232	-82.88	-14.76	-36.0	46.88	293.00	Vertical	Horizontal	Pass
221.042	-80.23	-14.93	-54.0	26.23	260.00	Vertical	Horizontal	Pass
768.461	-68.01	-0.25	-54.0	14.01	54.00	Vertical	Horizontal	Pass

OPERATING ANT-H



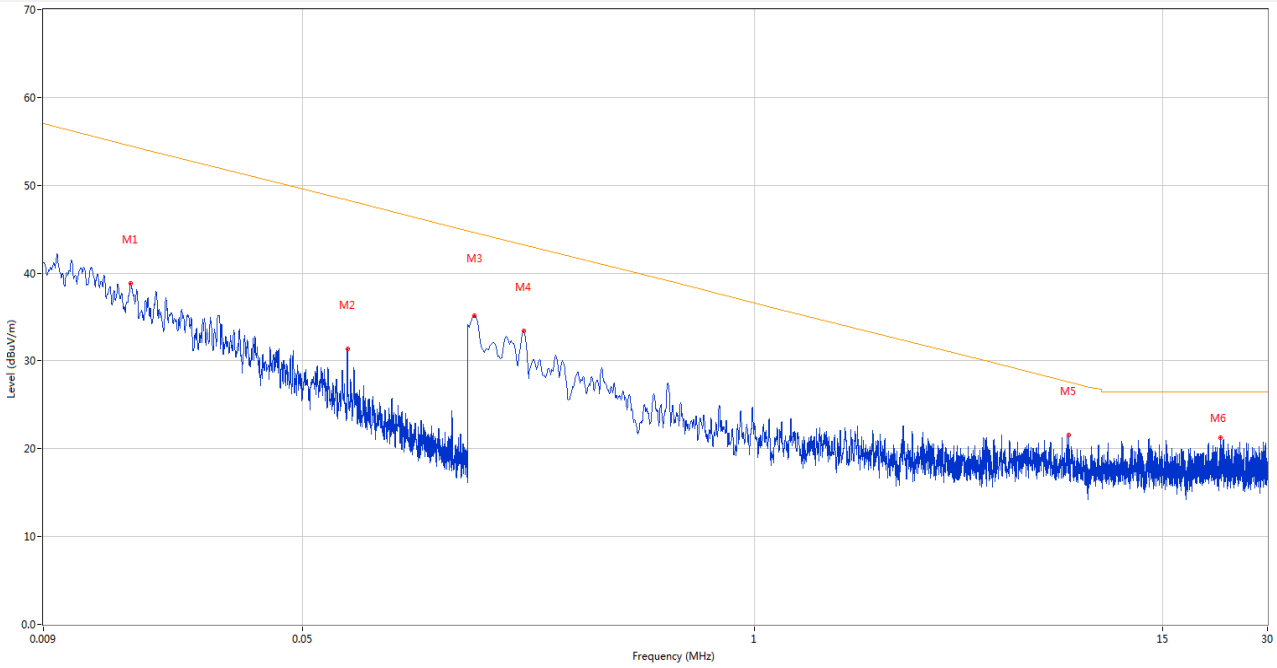
Frequency (MHz)	Result (dBm)	Factor (dB)	Limit (dBm)	Margin (dB)	Table (o)	ANT	EUT	Verdict
45.084	-84.30	-14.39	-36.0	48.30	311.00	Horizontal	Horizontal	Pass
80.295	-85.17	-16.16	-36.0	49.17	331.00	Horizontal	Horizontal	Pass
183.988	-81.10	-16.25	-54.0	27.10	295.00	Horizontal	Horizontal	Pass
224.873	-79.69	-14.45	-54.0	25.69	283.00	Horizontal	Horizontal	Pass
495.988	-72.48	-6.68	-54.0	18.48	3.00	Horizontal	Horizontal	Pass
853.287	-67.25	0.67	-36.0	31.25	11.00	Horizontal	Horizontal	Pass

A.7 Receiver spurious emissions

Receiver spurious emissions in the range from 9 kHz to 30 MHz

Test Data and Plot

RX ANT-V



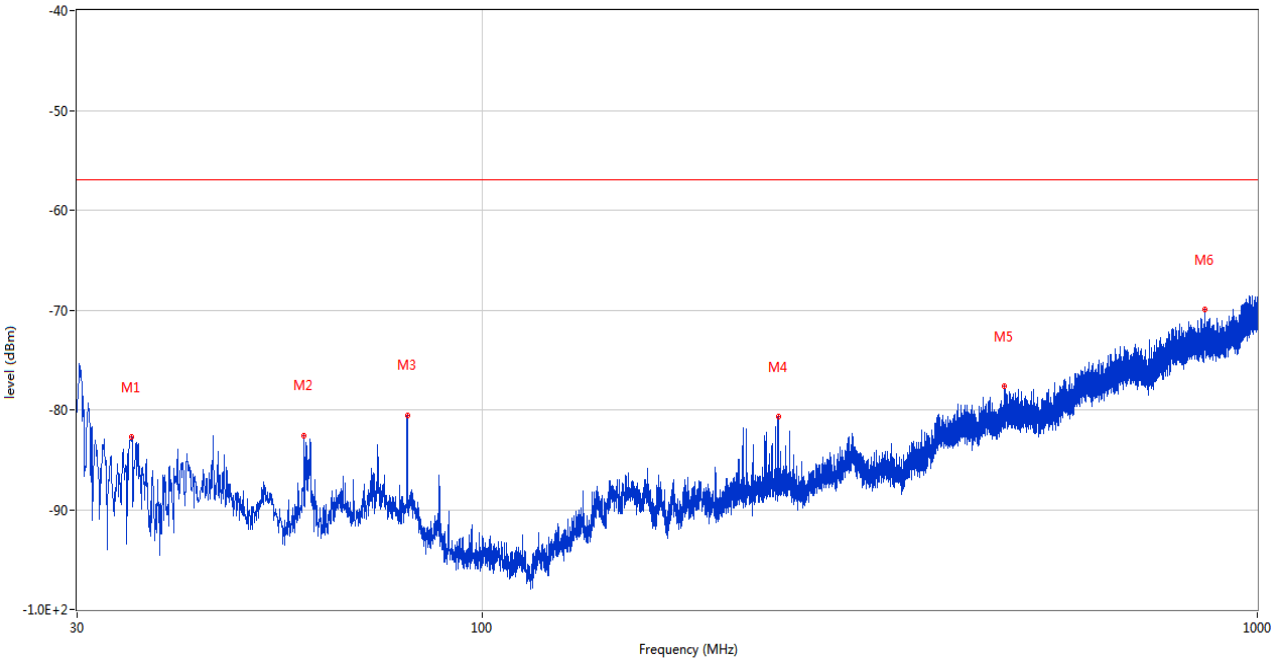
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.016	38.83	10.65	54.5	15.67	Peak	356.00	100	Vertical	Pass
2	0.067	31.37	10.56	48.3	16.93	Peak	113.00	100	Vertical	Pass
3	0.156	35.14	10.30	44.7	9.56	Peak	128.00	100	Vertical	Pass
4	0.217	33.40	10.25	43.2	9.80	Peak	63.00	100	Vertical	Pass
5	8.038	21.57	10.04	27.6	6.03	Peak	183.00	100	Vertical	Pass
6	21.931	21.28	10.14	26.5	5.22	Peak	336.00	100	Vertical	Pass

Note: For measuring equipment calibrated in dBμV, the reading should be reduced by 51.5 dB to be converted to dBμA/m.

Receiver spurious emissions in the range from 30 MHz to 1 GHz

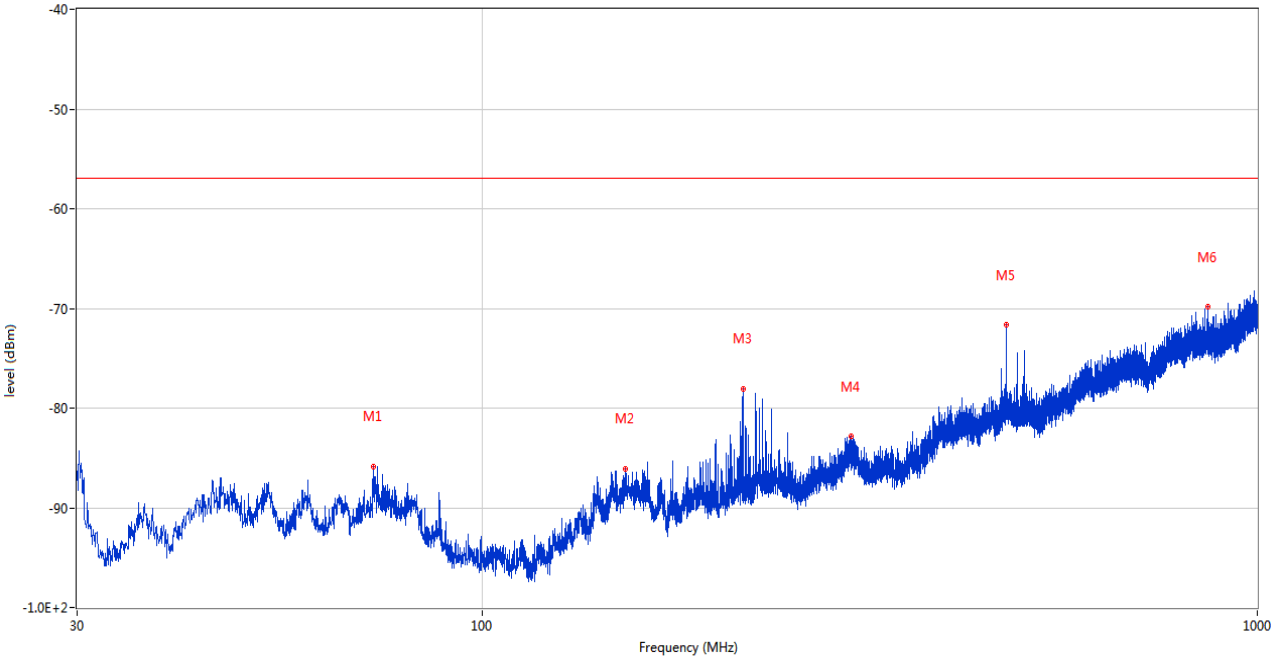
Test Data and Plots

RX ANT-V



Frequency (MHz)	Result (dBm)	Factor (dB)	Limit (dBm)	Margin (dB)	Table (o)	ANT	EUT	Verdict
35.286	-82.76	-17.75	-57.0	25.76	145.00	Vertical	Horizontal	Pass
58.809	-82.55	-15.96	-57.0	25.55	332.00	Vertical	Horizontal	Pass
80.004	-80.51	-16.04	-57.0	23.51	360.00	Vertical	Horizontal	Pass
240.975	-80.67	-14.13	-57.0	23.67	198.00	Vertical	Horizontal	Pass
472.029	-77.67	-6.75	-57.0	20.67	166.00	Vertical	Horizontal	Pass
855.615	-69.93	0.81	-57.0	12.93	286.00	Vertical	Horizontal	Pass

RX ANT-H



Frequency (MHz)	Result (dBm)	Factor (dB)	Limit (dBm)	Margin (dB)	Table (o)	ANT	EUT	Verdict
72.292	-85.84	-16.33	-57.0	28.84	0.00	Horizontal	Horizontal	Pass
153.190	-86.05	-14.71	-57.0	29.05	250.00	Horizontal	Horizontal	Pass
216.822	-78.03	-15.33	-57.0	21.03	300.00	Horizontal	Horizontal	Pass
298.738	-82.87	-11.60	-57.0	25.87	134.00	Horizontal	Horizontal	Pass
474.211	-71.64	-6.54	-57.0	14.64	146.00	Horizontal	Horizontal	Pass
862.842	-69.88	0.71	-57.0	12.88	300.00	Horizontal	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2340760-AE-2.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2340760-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2340760-AI.PDF”.

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